

ABSTRACT

A corrosion-resistant chromium steel for architectural and civil engineering structural elements, includes 0.0015 to 0.02 mass percent C, 0.0015 to 0.02 mass percent N, 0.1 to 1.0 mass percent Si, 0.1 to 3.0 mass percent Mn, more than 5 mass percent to less than 10 mass percent Cr, 0.01 to 3.0 mass percent Ni, 0.1 mass percent or less of Al, 0.05 mass percent or less of P, 0.03 mass percent or less of S, 0.01 to 1.0 mass percent Co, and the balance being Fe and incidental impurities. The steel has high long-term corrosion resistance and high weld-zone toughness. Preferably, the steel further includes 0.01 to 0.5 mass percent V and 0.001 to 0.05 mass percent W, the Cr content is in the range of more than 5 mass percent to less than 8 mass percent, and the Cr, V, and W contents are within a specified ratio.